

# **Farmyard research under the radar: are the 3Rs being used?**

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Research with farm animals may be carried out in many different ways. There are very intensive experiments with few animals in very special experimental situations, or research done at ordinary farms where the only experimental factor is more recordings than normal.

Here I will deal with the situation at the Department of Animal and Aquacultural Sciences at the Norwegian University of Life Sciences. On campus we are doing research with many species: dairy cattle, sheep, dairy goats, pigs, poultry, horses and fur animals (fox and mink). We are also doing research with reindeer, but just as recordings in the field.

Our main objective is to produce more knowledge about how to breed, feed and keep animals to produce food in an economical way. But it will be completely wrong to believe that economy is the only important factor. Ethics are important, and stressed animals are not producing the quality of food that we are aiming at.

Most of our research is experiments carried out in such a way that the animals involved are exactly in the same situation as if they lived on an ordinary commercial Norwegian farm. There are a few exceptions: our fistulated animals. We have fistulated cows and horses, 12 cows and 6 horses. They are also living a normal life, but they are very important in detailed metabolic studies as they are fistulated.

The 3Rs are not directly in mind when we are doing research, but indirectly they always play a very important role. That is because running the type of experiments we do, is very expensive, and we must be very cautious to avoid larger scale of research than really needed. Regarding the fistulated animals we always keep them at a

minimum. Because they are very valuable, they tend to live longer than ordinary farm animals.

Our combination of a feed technology centre, fistulated animals and the possibility of doing research on a farm scale gives us a unique possibility to really find the best feed mixtures and the best way of feeding farm animals for the best of both the animals and the quality of their products, which means a benefit for the consumer.